**Purpose:** To construct a paper airplane(s) and use the scientific method to perform an experiment with it.

**Discuss the following questions with your partner…..**

1. Have you made and flown a paper airplane before?
2. Do you always use the same type of paper?
3. Do you always use the same design?
4. Do you want it to fly straight or do tricks?
5. Do you add other materials to your plane?

Here are questions you may want to consider when thinking about an experiment on your plane...

1. How does adding paper clips to a paper airplane affect its flight?
2. How does a change in type of paper affect its flight?
3. Do ailerons, elevators, or rudders affect its flight?

**Choose one or come up with your own question**

**Questions:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hypothesis**

What do you think is going to happen if………

* How do you think the addition of a paper clip to the paper airplane affects its flight distance?
* Does the placement of the clip matter?

**Example:**

If a paper clip is added to this \_(location)\_ of the paper airplane, then \_\_\_\_\_\_\_\_ will happen.

**Hypothesis:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials -** What do you need to perform this experiment?

**List of materials:**

**Procedure -** This should be written as a list of numbered steps. Each step must be clear AND concise.

**Example**

1. ****Make the "Dashing Dart" paper airplane. See instructions from book pages 46-47.
2. Gather materials and head out to your assigned runway.
3. Fly your initial airplane, measure the flight distance, time, speed or trick…, and record your data in as table.
4. Make ONLY ONE change to your airplane.
5. Fly your airplane, measure the flight distance, time, speed or trick…, and record your data in a table.

**Procedures: Data**

**Conclusion –** Written explanations for the experiment that relates to what you observed and the results you obtained. Do not repeat the procedure OR the hypothesis and should only 3-4 sentences long.

*Guiding Questions:*

1. Was your hypothesis correct? Explain why or why not?
2. Is there anything that you would have or should have done differently?
3. What are some things you learned in this activity?